

REMARKS

This paper is filed in response to the Office action dated June 23, 2009. In that Office action, claim 8 is objected to, and claims 1-3 and 5-9 are rejected in view of prior art. In light of the foregoing amendments and following remarks, applicants respectfully submit that pending claims 1-3 and 5-9 are in condition for allowance and respectfully solicit same.

Claim Objections

At the outset, the Examiner objects to claim 8 for informalities, and more particularly, because claim 8 recites "superior 25 characteristics". In response, applicants have amended claim 8 accordingly. Therefore, applicants respectfully submit that the objection to claim 8 must fail and should be withdrawn.

Claim Rejections – 35 U.S.C. §102

In the outstanding Office action, claims 1 and 5-9 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,329,647 ("Freedman"). However, to anticipate a claim, MPEP §2131 requires that a single prior art reference must disclose each and every limitation of the claim. Applicants submit that each of the pending claims includes one or more elements that are not disclosed by Freedman, thereby overcoming the aforementioned rejection, as discussed more specifically below.

Among other things, independent claim 1, as well as claims 2-3 dependent thereon, specifies a method of surveying drill holes comprising the steps of feeding an inertial survey tool into a borehole on the end of a drill string as part of a hole drilling operation, activating the survey tool once drilling is completed, and taking position readings from the survey tool as the drill string is withdrawn from the hole. Independent claim 5, as well as claims 6-9 dependent thereon, similarly specifies an apparatus for surveying drill holes which incorporates the method of claim 1. Each of claims 1 and 5 further requires the steps of taking position readings from the survey tool as the withdrawal of the drill string is temporarily halted for the removal of each drill rod from the drill string.

Freedman fails to disclose such elements. Freedman is directed toward a method for determining distance and direction from an open well to a cased well using resistivity logs and directional survey data. The Examiner asserts that Freedman teaches all of the limitations of each of independent claims 1 and 5. Moreover, the Examiner asserts that

Freedman teaches an apparatus for surveying drill holes using the method steps of feeding a survey tool into a bore hole *on the end of a drill string*, activating the tool once drilling is complete, and taking position readings from the survey tool as withdrawal of the drill string is temporarily halted to remove each drill rod. The Examiner further asserts that she finds support for her assertions in column 5, lines 21-30 of Freedman. However, applicants respectfully disagree. Contrary to the Examiner's assertions, there is nothing in Freedman which discloses anything related to a survey tool being positioned on an end of a drill string, let alone activating such a tool once drilling is complete and taking position readings from the survey tool during withdrawal of the drill string. In fact, the paragraph referred to by the Examiner, for instance, column 5, lines 23 and 24 of Freedman, teaches that "the drill string is removed from the relief well" with the bore hole survey being taken after removal of the drill string. The survey method of Freedman is exactly what the present application teaches as being prior art. See, for example, the paragraph beginning at line 24 of page 2 and the paragraph beginning at line 4 on page 3 of the present application. The disadvantage associated with such a survey method is what the present application aims to overcome.

Although it is not stated explicitly, the presumption upon reading the Freedman reference would be that the survey tool is lowered into the relief well after removal of the drill string on a wireline, as described in its description of the prior art at column 1, line 32 and at column 2, line 6. However, there is nothing in the specification of Freedman that teaches feeding a survey tool into a bore hole on the end of a drill string as asserted by the Examiner on page 2 of the Office action. Furthermore, support for the fact that the survey tool is used on a wireline in Freedman can be found at column 5, line 43 which teaches that "an induction log is run in the relief well either before or after the directional survey". Thus, clearly, the directional survey is run as a separate operation after removal of the drill string from the relief well, as disclosed in column 9, line 23 and 24, and subsequently, an induction survey is performed as an additional and separate operation. As Freedman fails to teach every limitation of the pending claims, applicants respectfully submit that the anticipation rejection of claims 1 and 5-9 based on Freedman must also fail and should be withdrawn.

Claim Rejections – 35 U.S.C. §103

In the Office action, claim 1 stands rejected under 35 U.S.C. §103(a) as being obvious over Freedman, and claims 2 and 3 stand rejected under 35 U.S.C. §103(a) as being

obvious over Freedman in view of U.S. Patent No. 4,047,430 ("Angehrn"). However, to support an obviousness rejection, MPEP §2143.03 requires "all words of a claim to be considered" and MPEP §2141.02 requires consideration of the "[claimed] invention and prior art as a whole." Further, the Board of Patent Appeals and Interferences recently confirmed that a proper, post-KSR obviousness determination still requires the Office to make "a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art." See, *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995). Applicants submit that each of the pending claims includes one or more elements that are not disclosed by the prior art noted above, thereby overcoming the aforementioned rejection, as discussed more specifically below.

Freedman has been previously discussed as being irrelevant to the present application, and further, as failing to teach or suggest all of the limitations of the pending claims. Moreover, Freedman has been shown to lack at least a survey tool being positioned on an end of a drill string, let alone activating such a tool once drilling is complete and taking position readings from the survey tool during withdrawal of the drill string. As Freedman does not teach or suggest all of the limitations of pending claims, the obviousness rejection of claim 1 based on Freedman must also fail and should be withdrawn.

Angehrn similarly fails. Angehrn is directed toward a method of receiving data from a logging instrument which is completely opposite to that of the present application. Specifically, column 7, lines 35-38 of Angehrn teaches storing and reading logging signals and clock signals into the solid state memory whenever the pipe is moving, but reverting to a standby state when movement of the drill pipe ceases for removal of drill rods from the drill string. By way of complete contrast, the pending claims require taking position readings from the survey tool as withdrawal of the drill string is temporarily halted to remove each drill rod from the drill string. Furthermore, Angehrn fails to supply Freedman with at least a survey tool being positioned on an end of a drill string, let alone activating such a tool once drilling is complete and taking position readings from the survey tool during withdrawal of the drill string. As the combination of Freedman and Angehrn does not teach or suggest all of the limitations of pending claims, the obviousness rejection of claims 2 and 3 based on Freedman and Angehrn must also fail and should be withdrawn.

CONCLUSION

In light of the foregoing, applicants respectfully submit that each of the currently pending claims, i.e. claims 1-3 and 5-9, are in condition for allowance and respectfully solicit the same. If a telephone call would expedite prosecution of the subject application, the Examiner is invited to call the undersigned agent. The undersigned verifies that he is authorized to act on behalf of the assignee of the present application.

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Respectfully submitted,

By 

Robin S. O

Registration No.: 60,043
MILLER MATTHIAS & HULL
One North Franklin Street
Suite 2350
Chicago, Illinois 60606
(312) 977-9902
Agent for Applicant